CURRICULUM

HF
5548.2
A335
1967

CURR HIST

ALTA
651.8
1967
Gr11

CURR

CURRICULUM
EDUCATION LIBRARY
UNIVERSITY OF ALBERTA

CURRICULUM GUIDE

D A T A P R O C E S S I N G

22

DEPARTMENT OF EDUCATION
Edmonton, Alberta
June, 1967

Digitized by the Internet Archive
in 2012 with funding from
University of Alberta Libraries

http://archive.org/details/dataprocessing22cg67albe

DATA PROCESSING 22

Prerequisite - None

Objectives:

1. To provide an introduction to unit record and electronic computer data processing.

2. To familiarize the students with the terms and routines of data processing and what the worker in an automated office needs to know.

3. To acquaint students with data processing procedures and concepts; manual, mechanical and electrical.

4. To develop a basic competence in the application of systems and in elementary programming of electro-mechanical and electronic data processing equipment.

5. To provide career guidance and background information for students who may wish to enter the field or proceed to advanced study.

NOTE - Students can be introduced to the machines available but it is not intended that Data Processing 22 be a machine operator's course

Scope

I. INTRODUCTION

- Purchasing Routine
  - Departmental Requisition
  - Stockroom Requisition
  - Purchase Order
  - Incoming Purchase Invoice

- Stock Department Routines
  - Filing Departmental Requisitions
  - Customers' Mail Orders
  - Perpetual Inventory
  - Physical Inventory
  - Receiving Shipments of Goods

- Sales Order Routines
  - Sales Invoice
  - Credit Invoice
  - Credit Approval
  - Shipping Department Invoice
  - Customers' Ledger Cards
  - Preparation of Statements

- Payroll Routines
  - Time Cards
  - Overtime
  - Withholding Deductions
  - Cheques

- Business Reports

  Inventory Transaction Listing
  Stock Status Summary
  Sales Analysis Summary
  Financial Reports, (Profit and Loss, etc.)

- Business Routines
  Demonstration of repetitive nature of business routines
  Projects involving the use of same information many times
  The "WHY" of Data Processing

II. DEVELOPMENT OF OFFICE AUTOMATION

- The Data processing cycle
- Automation in simple office tasks
- The keysort process and the pegboard
- The invention of the code
- The growing importance of automation in data processing
- The automated data processing cycle
- Two common automated systems
- Common - language machines
- What the worker in an automated office needs to know

III. THE TABULATING SYSTEM

- Recording numeric information on cards
  The tabulating system of processing data
  The standard punched card
  Recording numeric information on the card
  Numeric codes
  First steps in card planning
  Introduction to the key-punch machine

- Recording alphabetic information on cards
  Zone punching area
  Recording the letters of the alphabet
  Planning cards for recording alphabetic information
  Correcting errors made in card punching
  Preparation of card layouts
  Preparation of drum card for key-punch and verifier
  Exercises on key-punch and verifier for all students

- Processing data by the tabulating system
  Steps in the tabulating system
  The sorter and the sorting process
  The collator
  The interpreter
  The reproducer
  The accounting machine
  The calculating process
  The control panel
  Programming the processing of data by the tabulating system

It is not intended to go into control panel functions in the above section. Functions of the machines should be discussed in general.

IV. ELECTRONIC COMPUTER SYSTEM OF DATA PROCESSING

- Introduction

  Recent computer improvements
  Digital and analog computers
  Steps in the electronic computer system
  Batch processing; random processing
  Units that comprise the electronic computer system
  Magnetic tape code
  Binary code
  Binary code for digits
  Binary code for letters
  Parity check
  Business forms combined with magnetic tape
  Magnetic ink forms as input media
  Electronic data processing in banks
  Converters

- Processing Data by the Electronic Computer System

  Computer memory
  What the computer can do
  Computer words and addresses
  Instruction format

-Planning an electronic computer program

  Defining the problem
  Preparing the program steps to solve the problem
  Preparing a block diagram of the steps in the program
  Coding and assembling the program
  Testing the program
  A sample program using symbolic coding
  The computer applied to inventory control
  Summary

Text: Understanding Modern Business Data Processing, B. Robichaud, 1966 Edition, Gregg Division, McGraw Hill.

References

HF 5548.2 W24

Automation Office Practice, Wanous and Wanous and Sherk, 1966 Edition, South-Western Publishing Co. Working papers to accompany above.

Business Data Processing, Elias M. Award, Prentice Hall.

I.B.M. Manuals and Programmed Instruction Courses

You and the Computer, General Electric computers - Theory and uses, V.S. Darnowski.

QA 76.5 .A16 1966

Basic Data Processing, P. Abrams, W. Corvine, 1966 Edition, Holt, Rinehart and Winston, Inc.

DATE DUE SLIP

F255

HF 5548-2 A335 1967
ALBERTA DEPT OF EDUCATION
DATA PROCESSING 22 --

39844406 CURR HIST

000017904871

HF 5548.2 A335 1967
Alberta. Dept. of Education.
Data processing 22. -

39844406 CURR HIST

GUIDE

For Reference

NOT TO BE TAKEN FROM THIS ROOM

EXCEPT WITH LIBRARIAN'S PERMISSION